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Exploring Data Science in IT and Quantitative Management: Preface for ITQM 2015

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Welcome to the Third International Conference on Information Technology and Quantitative Management (ITQM 2015), July 21-24, 2015, Rio De Janeiro, Brazil. The theme of ITQM 2015 is "**Exploring Data Science in IT and Quantitative Management**". ITQM 2015 is organized by International Academy of Information Technology and Quantitative Management (IAITQM) and Ibmec/RJ, Brazil.

The International Conference on Information Technology and Quantitative Management is a global forum for exchanging research results and case studies that bridge the latest information technology and quantitative management techniques. It explores how the use of information technology to improve quantitative management techniques and how the development of management tools can reshape the development of information technology.

ITQM 2015 covers all topics in the broad ranges of Information Technology and quantitative management, including, but not limited to:

- IT-enabled quantitative management and decision making in the government sector and in public and private companies
- Applications of IT-enabled quantitative management and decision making in Logistics, Finance, Marketing, Strategy, Human Resources, IT, Project Management, Process Improvement, Sustainability, Innovation, and other Management disciplines
- Developments in IT-enabled quantitative management and decision making in different industries, such as Oil and Gas, Banking, Transportation, Utilities, Health care, Telecom, Education, etc.
- Habitual domain and behavioral approaches to Big Data analytics

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- Data Science issues in information technology and quantitative management
- Applications of Big Data technologies and methods (e.g., Data Mining, Data Warehousing, Data Analysis) to support optimal decision making
- Using mobile technologies and cloud computing to enhance optimal decision making
- Applications of Social Networks Analysis in IT-enabled quantitative management and decision making
- IT-enabled quantitative management and maturity models
- Soft computing methods in quantitative management and decision making processes
- Developments in Multicriteria Analysis related to IT-enabled quantitative management
- Semantic learning and intelligent awareness
- Quantitative management tools

Technical exchanges within the research community will encompass invited keynote lectures, special sessions, tutorials and workshops, and panel discussions.

At ITQM 2015, we have invited the following world leading keynote speakers to give their current and future vision of Information Technology and Quantitative Management:

- Raj Reddy "Computational Limits to Human Thinking in a Society with Too Much Information and Too Little Time", Carnegie Mellon University, USA;
- James M. Tien "Exploring Big Data in Enterprise Systems", University of Miami, USA;
- Po-lung Yu "Decision Making in Changeable Spaces", University of Kansas, USA/ National Chiao-Tung University, Taiwan;
- Heeseok Lee "IT and Emerging Internet of Things: Potential and Opportunities", Korea Advanced Institute of Science and Technology, Korea;

In addition to our excellent keynote speakers, there are 4 tutorial speakers on various IT/QM topics:

- Fuad Aleskerov "Models for Analysis of Consumers' Behavior for A Large Retail Network", National Research University Higher School of Economics/ Russian Academy of Sciences, Russia;
- Yong Shi "Big Data and Data Science in ITQM", International Academy of Information Technology and Quantitative Management (IAITQM);
- Francisco Antonio Doria "A Quasi-Polynomial Algorithm for NP-Complete Problems", the Federal University at Rio de Janeiro, Brazil;
- Walter Böddener "About Rio 2016™'- Olympic and Paralympic Games Rio 2016", Rio 2016™, Brazil

There were more 400 scholars from 19 countries and regions submitted their papers to ITQM 2015. The authors are from Australia, Brazil, Chile, China, Colombia, Greece, Iran, Japan, Kazakhstan, Korea, Mexico, Romania, Russia, South Africa, Spain, Sweden, Taiwan, UK, and USA. After the peer-review process, we have accepted 166 high-quality papers from all submitted papers for presentation at the conference. These papers are published by Elsevier in their Procedia Computer Science series. They are allocated into one main track, 22 special sessions and 16 workshops.

Again, ITQM 2015 relies strongly on the vital contributions of our workshop organizers to attract high quality papers in many subject areas. We would like to thank all special session/workshop organizers, ITQM committee members, and reviewers for their contribution to ensure a high standard for the accepted papers. We would like to express our gratitude to the Rio local organizing committee for their enthusiastic work towards the success of ITQM 2015. We owe special thanks to our sponsors: Ibmec, FIRJAN, UFF, SOBRAPO, ASSESPRO, UFF, CAPES, FAPERJ, SUCESU-RJ, SINDITEC, and ANE – National Academy of Engineering in Brazil; Research Center on Fictitious Economy and Data Science and Key Lab of Big Data Mining and Knowledge Management, Chinese Academy of Sciences, School of Management, University Chinese Academy of Sciences, Institute of Policy and Management, Chinese Academy of Sciences, and Chinese Society of Management Modernization in China, University of Nebraska at Omaha in USA, for their generous support.

We wish you a successful and enjoyable conference in Rio!

July 2014, Rio

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